MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2018 / 2019

BEA 2074 ENTERPRISE ARCHITECTURE

(All Sections / Groups)

29 MAY 2019
2.30 PM – 4.30 PM
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This examination paper consists of **THREE (3)** pages including the cover page)

2. Answer **ALL** questions.

3. The marks distributions are given in parentheses.

Question 1

You have been selected to develop the Enterprise Architecture (EA) of an online shopping company called Easy Shopping. The company is trying to make a lifestyle statement for its latest e-commerce web application, which includes various fashion and lifestyle products. The store enables registered customers to view and select various products that they are keen to purchase using PayPal, credit card, direct debit or any other payment processor (Instant Pay). The store also has the option of cash on delivery (Pay Later) option. Cart management will update items added or removed from cart and update total payable upon checkout.

In order to develop an e-commerce website, a number of Technologies must be studied and understood. Data sets include CUSTOMER (username, firstname, lastname, e-mail id, password, address), CATEGORY (category_id and category_name), PRODUCTS (P_Price, p_id, p_name, p_model), CART ITEM (quantity, cart_id, total cost), PAYMENT (payment_id, amount, payment_type). The detailed business process is as follows, a customer has to be registered belonging to the online shopping registry.

The Customer makes payment for products that have been added into cart upon checkout. Products that are added into the cart has multiple categories This is a project with the objective to develop an online shopping portal where a consumer is provided with a shopping cart application and also to know about the technologies used to develop such an application.

Based on the client write up above, develop the Enterprise Architecture framework (EA) based on the TOGAF architecture. (Hint: Use the following four phases below)

1. Business Architecture
2. Information/Data Architecture
3. Applications Architecture
4. Infrastructure Architecture

Required:

1. Describe the business architecture for Easy Shopping with the aid of UML diagram. - (10 marks)
2. Prepare data architecture with the aid of an ERD - (15 marks)
3. Illustrate the application architecture - (15 marks)
4. What will be some of the nonfunctional elements - (10 marks)

(50 marks)

Continued...

Question 2

Define Enterprise Architecture and give example of the Zachman framework?

(15 marks)

Question 3

If you work for medium size company and you want to start an enterprise architecture program, what are the best approaches to start this? Assume that you don't have managers to support you, the organization you work for has a low level maturity about EA and nobody else knows about EA except yourself.

(15 marks)

Question 4

There is a growing tension between the ease of analysis on structured data versus unstructured data. Structured data analytics is a mature process and technology (EF Codd, 1960). Unstructured data analytics is a nascent (just coming into existence) industry. Corporations have to decide if they should invest in analytics for unstructured data, and if it is possible to aggregate the two into better business intelligence.

a. Define what is meant by structured and unstructured data? (10 marks)

b. How can Business Intelligence be achieved with analytics on unstructured data?

(10 marks)

End of Paper